STIC Search Report
Biotech-Chem Library

STIC Database Tracking Number: 193406

TO: Michael Meller **Location: 3c03 / 3c18** **Art Unit: 1655** **Wednesday, June 21, 2006** **Case Serial Number: 10/695930**	**From: Noble Jarrell** **Location: Biotech-Chem Library** **Rem 1B71** **Phone: 272-2556** **Noble.jarrell@uspto.gov**

Search Notes

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Scientific and Technical Information Center

SEARCH REQUEST FORM

Requester's Full Name: Mike Meller Examiner # : 69404 Date: 6/2/06

Art Unit: 1655 Phone Number: 272-0967 Serial Number: 10/698,930

Location (Bldg/Room#): Rem 3C03 (Mailbox #): _____ Results Format Preferred (circle): PAPER DISK

****

To ensure an efficient and quality search, please attach a copy of the cover sheet, claims, and abstract or fill out the following:

Title of Invention: Process for the preparation of amino alcohol...

Inventors (please provide full names): Walter Brieden, Josef Schröer, Christine Bernegger-Egli, Eva Urban, Michael Petersen, Jean-Paul Radvit.

Earliest Priority Date: 11/27/1997.

Search Topic:

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc., if known.

For Sequence Searches Only *Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

please search claims 8 & 9. in all pertinent Database.

Please give to Paul Schmitz or Noble Jarrell only.

C. Chan
Rush

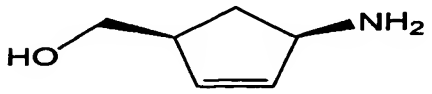
****

STAFF USE ONLY	Type of Search	Vendors and cost where applicable
Searcher: Noble	____ NA Sequence (#)	✓ STN ____ Dialog
Searcher Phone #:	____ AA Sequence (#)	____ Questel/Orbit ____ Lexis/Nexis
Searcher Location:	D ✓ Structure (#)	____ Westlaw ____ WWW/Internet
Date Searcher Picked Up: 6/21/06	____ Bibliographic	____ In-house sequence systems
Date Completed: 6/21/06	____ Litigation	____ Commercial ____ Oligomer ____ Score/Length ____ Interference ____ SPDI ____ Encode/Transl ____ Other (specify)
Searcher Prep & Review Time: 10	____ Fulltext	
Online Time: 38	____ Other	

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions, and listings, of claims in this application.

Claim 8 (Currently Amended): Process for the preparation of (1S,4R)- or (1R,4S)-1-amino-4-(hydroxymethyl)-2-cyclopentene of the formulae



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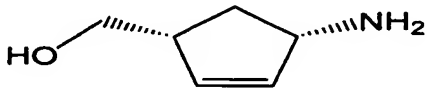


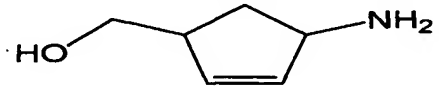
VI

or salts thereof and/or of (1S,4R)- or (1R,4S)-1-amino-4-(hydroxymethyl)-2-cyclopentene derivatives of the general formulae

VII

VIII

or salts thereof, in which X and Y are identical or different and are an acyl group or H, with the exception of X = Y = H, comprising the racemate resolution of racemic aminoalcohol of the formula



I

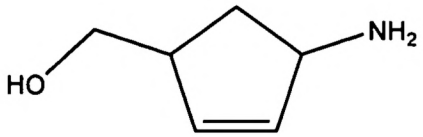
~~either~~ by chemical means using an optically active tartaric acid ~~or biotechnological means using a hydrolase in the presence of an acylating agent~~.

Claim 9 (Currently Amended): Process according to Patent Claim 8, characterized in that ~~the biotechnological racemate resolution is carried out using a lipase, and~~ the chemical racemate resolution is carried out using D-(-)- or L-(+)-tartaric acid.

Claims 10-13 (Canceled)

Claim 14 (Original): (1R,4S)-1-Amino-4-(hydroxymethyl)-2-cyclopentene D- or L-hydrogentartrate.

Claim 15 (Original): (1S,4R)-1-Amino-4-(hydroxymethyl)-2-cyclopentene L- or D-hydrogentartrate.



$C_6H_{11}NO$

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STRUCTURE FILE UPDATES:   20 JUN 2006  HIGHEST RN 888507-19-5
DICTIONARY FILE UPDATES:  20 JUN 2006  HIGHEST RN 888507-19-5

New CAS Information Use Policies, enter HELP USAGETERMS for details.

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*                                                                    *
* The CA roles and document type information have been removed from *
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*                                                                    *
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on property searching in REGISTRY, refer to:

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L15             STR
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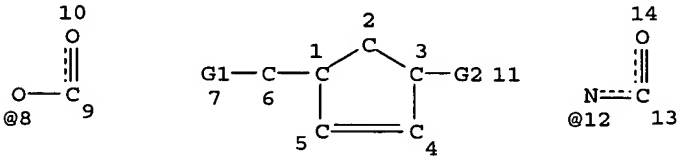


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DEFAULT ECLEVEL IS LIMITED

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NUMBER OF NODES IS  14

STEREO ATTRIBUTES: NONE
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FILE COVERS 1907 - 21 Jun 2006 VOL 144 ISS 26
FILE LAST UPDATED: 20 Jun 2006 (20060620/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate
substance identification.

=> d bib abs fhitstr hitrn l38 tot

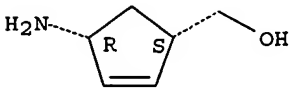
L38 ANSWER 1 OF 7 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:349089 HCAPLUS
DN 141:49448
TI A new amidohydrolase from Bordetella or Alcaligenes strain FB188 with similarities to histone deacetylases
AU Hildmann, Christian; Ninkovic, Milena; Dietrich, Ruediger; Wegener, Dennis; Riester, Daniel; Zimmermann, Thomas; Birch, Olwen M.; Bernegger, Christine; Loidl, Peter; Schwienhorst, Andreas
CS Abteilung fuer Molekulare Genetik und Praeparative Molekularbiologie, Institut fuer Mikrobiologie und Genetik, Goettingen, D-37077, Germany
SO Journal of Bacteriology (2004), 186(8), 2328-2339
CODEN: JOBAAY; ISSN: 0021-9193
PB American Society for Microbiology
DT Journal
LA English
AB The full-length gene encoding the histone deacetylase (HDAC)-like amidohydrolase (HDAH) from Bordetella or Alcaligenes (Bordetella/Alcaligenes) strain FB188 (DSM 11172) was cloned using degenerate primer PCR combined with inverse-PCR techniques and ultimately expressed in Escherichia coli. The expressed enzyme was biochem. characterized and found to be similar to the native enzyme for all properties examined Nucleotide sequence anal. revealed an open reading frame of 1110 bp which encodes a polypeptide with a theor. mol. mass of 39 kDa. Interestingly, peptide sequencing disclosed that the N-terminal methionine is lacking in the mature wild-type enzyme, presumably due to the action of methionyl aminopeptidase. Sequence database searches suggest that the new amidohydrolase belongs to the HDAC superfamily, with the closest homologs being found in the subfamily assigned acetylpolyamine amidohydrolases (APAH). The APAH subfamily comprises enzymes or putative enzymes from such diverse microorganisms as Pseudomonas aeruginosa, Archaeoglobus fulgidus, and the actinomycete Mycoplana ramosa (formerly M. bullata). The FB188 HDAH, however, is only moderately active in catalyzing the deacetylation of acetylpolyamines. In fact, FB188 HDAH exhibits significant activity in standard HDAC assays and is inhibited by known HDAC inhibitors such as trichostatin A and suberoylanilide hydroxamic acid (SAHA). Several lines of evidence indicate that the FB188 HDAH is very similar to class 1 and 2 HDACs and contains a Zn2+ ion in the

active site which contributes significantly to catalytic activity. The stereoselectivity, low substrate specificity, and a broad optimum pH range may be useful in biotechnol. applications.

IT 136522-35-5
RL: BSU (Biological study, unclassified); BIOL (Biological study) (product; cloning and characterization of histone deacetylase-like amidohydrolase (hdah1) from Bordetella/Alcaligenes strain FB188)

RN 136522-35-5 HCAPLUS
CN 2-Cyclopentene-1-methanol, 4-amino-, (1S,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IT 136522-35-5
RL: BSU (Biological study, unclassified); BIOL (Biological study) (product; cloning and characterization of histone deacetylase-like amidohydrolase (hdah1) from Bordetella/Alcaligenes strain FB188)

IT 130931-86-1
RL: BSU (Biological study, unclassified); BIOL (Biological study) (substrate, kinetics; cloning and characterization of histone deacetylase-like amidohydrolase (hdah1) from Bordetella/Alcaligenes strain FB188)

RE.CNT 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L38 ANSWER 2 OF 7 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2000:457234 HCAPLUS
DN 133:72985
TI Method for producing optically active 1-amino-4-(hydroxymethyl)-cyclopent-2-ene derivatives
IN **Brieden, Walter**; Etter, Kay-sara; **Petersen, Michael**
PA Lonza A.-G., Switz.
SO PCT Int. Appl., 13 pp.
CODEN: PIXXD2
DT Patent
LA German
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO2000039324	A2	20000706	1999WO-EP10382	19991223
WO2000039324	A3	20000921		
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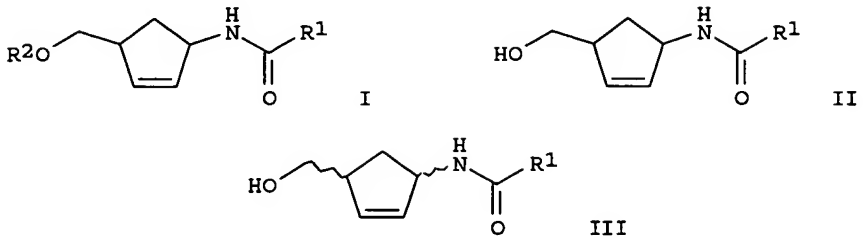
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA---2354382	AA	20000706	1999CA-2354382	19991223
EP---1141374	A2	20011010	1999EP-0965556	19991223
EP---1141374	B1	20031029		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP2003520018	T2	20030702	2000JP-0591213	19991223
AT----253125	E	20031115	1999AT-0965556	19991223
PT---1141374	T	20040331	1999PT-0965556	19991223
ES---2211216	T3	20040701	1999ES-0965556	19991223
NO2001003037	A	20010619	2001NO-0003037	20010619
US2002042108	A1	20020411	2001US-0888068	20010622

	US---6524844	B2	20030225
PRAI	1998EP-0124570	A	19981223
	1999US-145999P	P	19990729
	1999US-145959P	P	19990729
	1999WO-EP10382	W	19991223
OS	MARPAT 133:72985		

GI



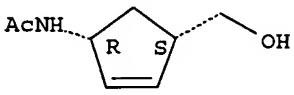
AB The invention provides a new method for producing enantiomer-enriched 1-amino-4-(hydroxymethyl)-cyclopent-2-ene derivs. of the general formulas (I) and (II) in which R1 is hydrogen or a substituted C1-8 alkyl residue, aryl residue or cycloalkyl residue and R2 is a substituted acyl. A racemic 1-amino-4-(hydroxymethyl)-cyclopent-2-ene derivative of general formula (III), where R1 is as above, is converted to I and II using a hydrolase and in the presence of an acylation agent. Thus, cis-N-Acetyl-1-amino-4-(hydroxymethyl)-cyclopent-2-ene dissolved in 2-methyl-2-butanol in the presence of Lipase M and vinyl butyrate was converted to a mixture of (1S, 4R)-N-Acetyl-1-amino-4-(hydroxymethyl)-cyclopent-2-ene and (1R, 4S)-N-Acetyl-1-amino-4-(propylcarbonyloxymethyl)-cyclopent-2-ene with a selectivity of over 98.5%. The mixture was then separated via silica gel chromatog. to yield enantiomerically pure or enriched fractions. The reaction could catalyzed with other lipases or subtilisin in dioxane or tributyrin solvent systems.

IT **130931-86-1P**
RL: **BPN (Biosynthetic preparation)**; **PUR (Purification or recovery)**; BIOL (Biological study); **PREP (Preparation)**
(method for producing optically active 1-amino-4-(hydroxymethyl)-cyclopent-2-ene derivs.)

RN 130931-86-1 HCAPLUS

CN Acetamide, N-[(1R,4S)-4-(hydroxymethyl)-2-cyclopenten-1-yl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **130931-86-1P 280115-03-9P**
RL: **BPN (Biosynthetic preparation)**; **PUR (Purification or recovery)**; BIOL (Biological study); **PREP (Preparation)**
(method for producing optically active 1-amino-4-(hydroxymethyl)-cyclopent-2-ene derivs.)

IT **65942-42-9**
RL: RCT (Reactant); RACT (Reactant or reagent)
(method for producing optically active 1-amino-4-(hydroxymethyl)-cyclopent-2-ene derivs.)

L38 ANSWER 3 OF 7 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2000:314678 HCAPLUS

DN 132:308602

TI Preparation of 4-[(2,5-diamino-6-halopyrimidin-4-yl)amino]cyclopent-2-enylmethanols from 2,5-diamino-4,6-dihalopyrimidines and 4-aminocyclopent-2-enylmethanol.

IN **Brieden, Walter**; Saikali, Elie
PA Lonza A.-G., Switz.

SO PCT Int. Appl., 21 pp.
CODEN: PIXXD2
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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	RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
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	EP---1124805	A1	20010822	1999EP-0971416	19991029
	EP---1124805	B1	20030521		
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	AT----240945	E	20030615	1999AT-0971416	19991029
	CN---1115338	B	20030723	1999CN-0812845	19991029
	ES---2200594	T3	20040301	1999ES-0971416	19991029
	NO2001002028	A	20010425	2001NO-0002028	20010425
	NO----318051	B1	20050124		
	US---6433170	B1	20020813	2001US-0807976	20010617
	HK---1042474	A1	20031121	2002HK-0101383	20020222
PRAI	1998EP-0120529	A	19981030		
	1999US-146105P	P	19990729		
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OS CASREACT 132:308602

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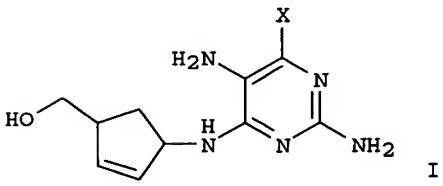


I

AB Title compds. (I; X = halo) were prepared by reaction of 2,5-diamino-4,6-dihalopyrimidines with 4-aminocyclopent-2-enylmethanol in the presence of base and in a polar protic solvent. Thus, (1S,4R)-4-aminocyclopent-2-enylmethanol hydrochloride, 2,5-diamino-4,6-dichloropyrimidine, and NaHCO3 were refluxed 16 h in EtOH to give 60% I (X = Cl).

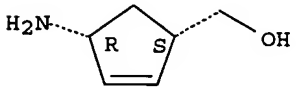
IT **168960-19-8**
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of 4-[(2,5-diamino-6-halopyrimidin-4-yl)amino]cyclopent-2-enylmethanols from 2,5-diamino-4,6-dihalopyrimidines and 4-aminocyclopent-2-enylmethanol)

RN 168960-19-8 HCAPLUS

CN 2-Cyclopentene-1-methanol, 4-amino-, hydrochloride, (1S,4R)- (9CI) (CA

INDEX NAME)

Absolute stereochemistry. Rotation (-).



● HCl

IT **168960-19-8 229177-39-3**
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of 4-[(2,5-diamino-6-halopyrimidin-4-yl)amino]cyclopent-2-enylmethanols from 2,5-diamino-4,6-dihalopyrimidines and 4-aminocyclopent-2-enylmethanol)
RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L38 ANSWER 4 OF 7 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2000:53929 HCAPLUS
DN 132:107046
TI Preparation of optically active azabicycloheptenone derivatives by stereospecific enzymic hydrolysis
IN **Bernegger-Egli, Christine**; Brux, Frank; **Roduit, Jean Paul**; Werbitzky, Oleg; Guggisberg, Yves
PA Lonza A.-G., Switz.
SO PCT Int. Appl., 27 pp.
CODEN: PIXXD2
DT Patent
LA German
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO2000003032	A1	20000120	1999WO-EP04814	19990708
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US---6780634	B1	20040824	2001US-0743391	20010417
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OS MARPAT 132:107046
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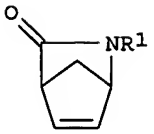

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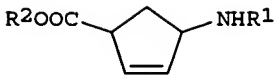

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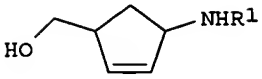


III

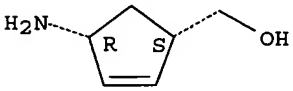
AB The invention relates to a biotechnol. method for producing optically active compds. of general formulas (I) and (II), wherein R1 represents acyl or acyloxy, and R2 represents H or C1-C10 alkyl, by reaction of the racemic lactam using a hydrolase in the presence of a nucleophile and in the presence of a base in a constant pH range. The invention also relates to the subsequent conversion of compound I into the optically active 1-amino-4-(hydroxymethyl)-2-cyclopentene of formula (III). Racemic 2-acetyl-2-azabicyclo[2.2.1]hept-5-en-3-one 419.25 mL was diluted with water 60 mL and a com. subtilisin solution 31.5 mL. This solution was brought to pH 7.5 and incubated at 30° with vigorous stirring. After 45 h (1R,4S)-2-Acetyl-2-azabicyclo[2.2.1]hept-5-en-3-one with an ee 99% was obtained. Final yield of purified product was 31%.

IT **136522-35-5DP**, derivs.
RL: **BMF (Bioindustrial manufacture)**; **BPN (Biosynthetic preparation)**; BIOL (Biological study); **PREP (Preparation)**
(preparation of optically active azabicycloheptenone derivs. by stereospecific enzymic hydrolysis)

RN 136522-35-5 HCAPLUS

CN 2-Cyclopentene-1-methanol, 4-amino-, (1S,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IT **136522-35-5DP**, derivs.
RL: **BMF (Bioindustrial manufacture)**; **BPN (Biosynthetic preparation)**; BIOL (Biological study); **PREP (Preparation)**
(preparation of optically active azabicycloheptenone derivs. by stereospecific enzymic hydrolysis)

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L38 ANSWER 5 OF 7 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1999:425590 HCAPLUS

DN 131:73379

TI Preparation of 4-amino-2-cyclopentenemethanol enantiomers as drug intermediates

IN **Brieden, Walter; Schroer, Josef; Bernegger-Egli, Christine; Urban, Eva Maria; Petersen, Michael; Roduit, Jean-Paul; Berchtold, Katja; Breitbach, Holger**

PA Lonza A.-G., Switz.

SO Eur. Pat. Appl., 28 pp.

CODEN: EPXXDW
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	EP----926131	A2	19990630	1998EP-0122293	19981124	<--
	EP----926131	A3	20000322			
	EP----926131	B1	20040211			
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	AT----259345	E	20040215	1998AT-0122293	19981124	<--
	US---6723868	B1	20040420	1998US-0198427	19981124	<--
	EP---1418170	A2	20040512	2004EP-0002913	19981124	<--
	EP---1418170	A3	20040519			
	EP---1418170	B1	20060607			
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	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI					
	EP---1657243	A1	20060517	2006EP-0002571	19981124	<--
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	CN---1550500	A	20041201	CN 2004-10043558	19981127	<--
	US2002010360	A1	20020124	2001US-0772501	20010130	<--
	US---6448402	B2	20020910			
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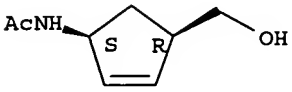
PRAI	1997CH-0002739	A	19971127	
	1997CH-0002781	A	19971203	<--
	1998CH-0000133	A	19980121	<--
	1998CH-0000723	A	19980327	<--
	1998EP-0118895	A	19981007	
	1998EP-0122293	A3	19981124	
	2004EP-0002913	A3	19981124	
	1998US-0198427	A3	19981124	<--
	1998IL-0127277	A3	19981126	

AB Title compds. were prepared by metal hydride reduction of 2-azabicyclo[2.2.1]hept-5-en-3-one.

IT **65942-42-9P**
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of 4-amino-2-cyclopentenemethanol enantiomers as drug intermediates)

RN 65942-42-9 HCAPLUS
CN Acetamide, N-[(1R,4S)-4-(hydroxymethyl)-2-cyclopenten-1-yl]-, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



IT **65942-42-9P**
RL: **IMF (Industrial manufacture)**; **RCT (Reactant)**; **SPN (Synthetic preparation)**; **PREP (Preparation)**; **RACT (Reactant or reagent)**
(preparation of 4-amino-2-cyclopentenemethanol enantiomers as drug intermediates)

IT **122624-72-0P 130931-86-1P 136522-30-0P 136522-35-5P 168960-18-7P 216481-85-5P 229177-39-3P 229177-46-2P 229177-49-5P 229177-52-0P**
RL: **IMF (Industrial manufacture)**; **SPN (Synthetic preparation)**; **PREP (Preparation)**
(preparation of 4-amino-2-cyclopentenemethanol enantiomers as drug intermediates)

IT **168960-19-8 229177-60-0**
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of 4-amino-2-cyclopentenemethanol enantiomers as drug intermediates)

L38 ANSWER 6 OF 7 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 1998:760072 HCAPLUS
DN 130:24137
TI Multistep process for the preparation of (1S,4R)- and/or (1R,4S)-4-(2-amino-6-chloro-9-H-purin-9-yl)-2-cyclopentene-1-methanol
IN **Bernegger, Christine**; **Urban, Eva-Maria**; Birch, Olwen Mary; Burgdorf, Kurt; Brux, Frank; Etter, Kay-Sara; Bossard, Pierre; **Brieden, Walter**; Duc, Laurent; Gordon, John; O'murchu, Colm; Guggisberg, Yves
PA Lonza Ag, Switz.
SO Eur. Pat. Appl., 39 pp.
CODEN: EPXXDW
DT Patent
LA German
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP----878548	A2	19981118	1998EP-0108721	19980513
EP----878548	A3	19991013		
EP----878548	B1	20040901		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
SK----284810	B6	20051201	1998SK-0000589	19980504
US---6156893	A	20001205	1998US-0073553	19980506
CA---2237297	AA	19981113	1998CA-2237297	19980511
NO---9802149	A	19981116	1998NO-0002149	19980512
JP--11005793	A2	19990112	1998JP-0129338	19980512
CN---1201794	A	19981216	1998CN-0108865	19980513
CN---1115343	B	20030723		
CN---1515673	A	20040728	CN 2003-2003123433	19980513
AT----275206	E	20040915	1998AT-0108721	19980513
PT----878548	T	20050131	1998PT-0108721	19980513
EP---1502914	A1	20050202	2004EP-0020273	19980513
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, RO				
ES---2223095	T3	20050216	1998ES-0108721	19980513
US---6137007	A	20001024	1999US-0373862	19990813
US---6252112	B1	20010626	1999US-0373857	19990813
US---6262295	B1	20010717	1999US-0373856	19990813

PRAI 1997CH-0001116 A 19970513
1997CH-0002740 A 19971127
1998US-0073553 A3 19980506
1998EP-0108721 A3 19980513
OS CASREACT 130:24137; MARPAT 130:24137
AB A new procedure for the production of (1S,4R)- (I) or (1R,4S)-4-(2-amino-6-chloro-9-H-purin-9-yl)-2-cyclopentene-1-methanol (II) is claimed. (±)-2-Azabicyclo[2.2.1]hept-5-en-3-one is acylated at the amide NH and the compound is cleaved to form the racemic acylamino cyclopentene derivative This is stereospecifically deacylated by a biotechnol. process to produce (1S,4R)- or (1R,4S)-1-amino-4-hydroxymethyl-2-cyclopentene. A 4th step is the reaction with N-(2-amino-4,6-dichloropyrimidine-5-yl)formamide to produce (1S,4R)- and/or (1R,4S)-4-[(2-amino-6-chloro-5-formamido-4-pyrimidinyl)-amino]-2-cyclopentene-1-methanol , which are cyclized to produce compds. I and II.
IT **168960-19-8P**
RL: **BPN (Biosynthetic preparation); SPN (Synthetic preparation); SPN (Synthetic preparation); PUR (Purification or recovery); PREP (Preparation); SPN (Synthetic preparation); PREP (Preparation); PREP (Preparation)**
(multistep process for the preparation of (1S,4R)- and/or (1R,4S)-4-(2-amino-6-chloro-9-H-purin-9-yl)-2-cyclopentene-1-methanol)
RN 168960-19-8 HCAPLUS
CN 2-Cyclopentene-1-methanol, 4-amino-, hydrochloride, (1S,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

● HCl

IT **168960-19-8P**
RL: **BPN (Biosynthetic preparation); PRP (Properties); PUR (Purification or recovery); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)**
(multistep process for the preparation of (1S,4R)- and/or (1R,4S)-4-(2-amino-6-chloro-9-H-purin-9-yl)-2-cyclopentene-1-methanol)
IT **130931-86-1P 168960-18-7P 216481-85-5P**
RL: **BPN (Biosynthetic preparation); PRP (Properties); PUR (Purification or recovery); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)**
(multistep process for the preparation of (1S,4R)- and/or (1R,4S)-4-(2-amino-6-chloro-9-H-purin-9-yl)-2-cyclopentene-1-methanol)
IT **136522-35-5P**
RL: **BPN (Biosynthetic preparation); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)**
(multistep process for the preparation of (1S,4R)- and/or (1R,4S)-4-(2-amino-6-chloro-9-H-purin-9-yl)-2-cyclopentene-1-methanol)
IT **216481-84-4P 216481-86-6P**
RL: **BPN (Biosynthetic preparation); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)**
(multistep process for the preparation of (1S,4R)- and/or (1R,4S)-4-(2-amino-6-chloro-9-H-purin-9-yl)-2-cyclopentene-1-methanol)
IT **199395-80-7P 199395-81-8P 199395-82-9P 199395-84-1P 199395-85-2P 216481-83-3P**
RL: BPR (Biological process); BSU (Biological study, unclassified); PRP

(Properties); **PUR (Purification or recovery)**; RCT (Reactant); **SPN (Synthetic preparation)**; BIOL (Biological study); **PREP (Preparation)**; PROC (Process); RACT (Reactant or reagent)
(multistep process for the preparation of (1S,4R)- and/or (1R,4S)-4-(2-amino-6-chloro-9-H-purin-9-yl)-2-cyclopentene-1-methanol)

IT **863638-17-9**
RL: RCT (Reactant); RACT (Reactant or reagent)
(multistep process for the preparation of (1S,4R)- and/or (1R,4S)-4-(2-amino-6-chloro-9-H-purin-9-yl)-2-cyclopentene-1-methanol)

L38 ANSWER 7 OF 7 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 1997:805825 HCAPLUS
DN 128:32314
TI Process for the preparation of amino alcohols and derivatives thereof
IN **Bernegger-Egli, Christine**; Birch, Olwen M.; Bossard, Pierre; **Brieden, Walter**; Brux, Frank; Burgdorf, Knut; Duc, Laurent; Etter, Kay-Sarah; Guggisberg, Ives; Sauter, Martin; **Urban, Eva Maria**
PA Lonza A.-G., Switz.; Bernegger-Egli, Christine; Birch, Olwen M.; Bossard, Pierre; Brieden, Walter; Brux, Frank; Burgdorf, Knut; Duc, Laurent
SO PCT Int. Appl., 68 pp.
CODEN: PIXXD2
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO---9745529	A1	19971204	1997WO-EP02838	19970530
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
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	AU---9731705	A1	19980105	1997AU-0031705	19970530
	EP----904348	A1	19990331	1997EP-0927092	19970530
	EP----904348	B1	20041124		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI				
	CN---1220695	A	19990623	1997CN-0195182	19970530
	JP2000512488	T2	20000926	1997JP-0541630	19970530
	IL----127235	A1	20030410	1997IL-0127235	19970530
	AT----283348	E	20041215	1997AT-0927092	19970530
	ES---2229362	T3	20050416	1997ES-0927092	19970530
	PT----904348	T	20050429	1997PT-0927092	19970530
	KR2000016124	A	20000325	1998KR-0709691	19981128
	US---6368850	B1	20020409	1999US-0194626	19990521
	US2003008360	A1	20030109	2001US-0992982	20011114
	US---6787347	B2	20040907		
	US2004265985	A1	20041230	2004US-0896223	20040721
PRAI	1996CH-0001359	A	19960530		
	1997CH-0000282	A	19970210		
	1997CH-0000908	A	19970418		
	1997WO-EP02838	W	19970530		
	1999US-0194626	A3	19990521		
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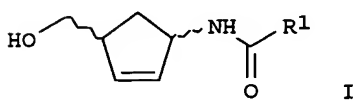
OS CASREACT 128:32314; MARPAT 128:32314
GI



I

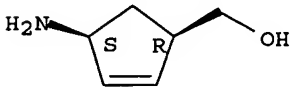
AB The invention relates to novel microorganisms which are capable of utilizing cyclopentene derivs. of the general formula (I), in which R1 is C1-C4-alkyl, C1-C4-alkoxy, aryl or aryloxy, as the only N source, as the only C source or as the only C and O source. The invention also relates to novel enzymes which hydrolyze the cyclopentene derivs. of the general formula I. The invention also relates to a novel process for the preparation of (1R,4S) or (1S,4R)-1-amino-4(hydroxymethyl)-2-cyclopentene and/or of a (1S,4R) or (1R,4S)-amino alc. derivative in which R1 has the above meaning.

IT 136522-30-0P
RL: BMF (Bioindustrial manufacture); BPN (Biosynthetic preparation); SPN (Synthetic preparation); SPN (Synthetic preparation); PREP (Preparation); PREP (Preparation)
(preparation of amino alcs. and derivs. thereof from azabicycloheptenones and microbial metabolism of the products)

RN 136522-30-0 HCAPLUS

CN 2-Cyclopentene-1-methanol, 4-amino-, (1R,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



IT 136522-30-0P 136522-35-5P
RL: BMF (Bioindustrial manufacture); BPN (Biosynthetic preparation); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation of amino alcs. and derivs. thereof from azabicycloheptenones and microbial metabolism of the products)

IT 199395-80-7P 199395-81-8P 199395-82-9P
199395-83-0P 199395-84-1P 199395-85-2P
RL: BPR (Biological process); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process); RACT (Reactant or reagent)
(preparation of amino alcs. and derivs. thereof from azabicycloheptenones and microbial metabolism of the products)

=> d bib abs hitstr l45 tot

L45 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 1998:394306 HCAPLUS
DN 129:54134
TI preparation and resolution of cyclopentenes synthons of carbocyclic nucleosides
IN Sickles, Barry Riddle; Ingold, Kenneth James; Wallis, Christopher John
PA Glaxo Group Limited, UK
SO PCT Int. Appl., 17 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO---9824741	A2	19980611	1997WO-EP06782	19971204 <--
WO---9824741	A3	19980911		

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG,

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            US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
        RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR,
            GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA,
            GN, ML, MR, NE, SN, TD, TG
     AU---9855601          A1    19980629    1998AU-0055601          19971204 <--
     EP----946496          A2    19991006    1997EP-0952036          19971204 <--
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO
     JP2001505210          T2    20010417    1998JP-0525202          19971204 <--
     US---6147254          A     20001114    1999US-0319496          19990806 <--
PRAI 1996GB-0025455        A     19961207  <--
     1997WO-EP06782        W     19971204  <--
OS   MARPAT 129:54134
GI
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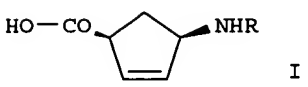
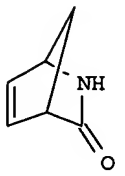


I



II

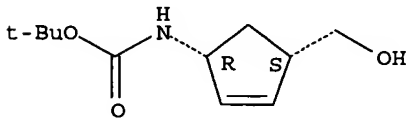
AB Carbocyclic stereoisomers, e.g. I, (R = protecting group) were prepared as synthons of carbocyclic nucleosides. Thus, I (R = Boc) wa prepared from racemic lactam II in 6 steps.

IT **168960-18-7P**
RL: **PUR (Purification or recovery); SPN (Synthetic preparation); PREP (Preparation)**
(preparation and resolution of cyclopentenes synthons of carbocyclic nucleosides)

RN 168960-18-7 HCAPLUS

CN Carbamic acid, [(1R,4S)-4-(hydroxymethyl)-2-cyclopenten-1-yl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L45 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1991:608462 HCAPLUS

DN 115:208462

TI Preparation of purinyl cyclopentenemethanol derivatives as medical antivirals

IN Daluge, Susan Mary

PA Wellcome Foundation Ltd., UK

SO Eur. Pat. Appl., 35 pp.
CODEN: EPXXDW

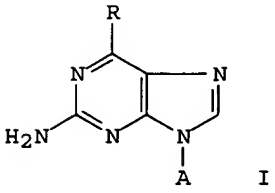
DT Patent

LA English

FAN.CNT 4

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP----434450	A2	19910626	1990EP-0314089	19901221
EP----434450	A3	19920708		

EP----434450 B1 19990707
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE
US---5034394 A 19910723 1989US-0455201 19891222
EP----921121 A1 19990609 1999EP-0103525 19901221
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE
EP----921114 A1 19990609 1999EP-0103526 19901221
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE
PRAI 1989US-0455201 A 19891222
1988GB-0015265 A 19880627
1989US-0371870 B2 19890626
1990EP-0314089 A3 19901221
OS MARPAT 115:208462
GI



I

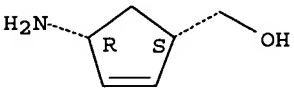
AB Title compound I (R = cyclopropylamino, N-cyclopropyl-N-methylamino; A = 1S,4R- or 1R,4S-2-cyclopentene-1-methanol-4-yl) and related analogs were prepared as medical antivirals. Thus, (±)-cis-4-acetamidocyclopent-2-enemethyl acetate was converted to the free amine then condensed with dibenzoyl D-**tartaric acid** and the tartrate formed was converted to (1S,4R)-4-amino-2-cyclopentene-1-methanol. This was condensed with N-(4,6-dichloro-5-formamido-2-pyrimidinyl)acetamie (preparation given) and the resulting product refluxed in diethoxymethyl acetate to give (-)-(1S,4R)-cis-(2-amino-6-chloro-9H-purin-9-yl)-2-cyclopentene-1-methanol, which was heated with cyclopropylamine to give (-)-(1S,4R)-cis-I (R = cycloproylamino) (II). II had IC50 of 4.0 ± 1.4 μM against HIV in MT4 cells. I were formulated as e.g., tablets and capsules.

IT **122624-72-0P 136470-89-8P 136522-31-1P**
136522-35-5P 136597-78-9P
RL: **SPN (Synthetic preparation); PREP (Preparation)**
(preparation of, as intermediate for preparation of medical antivirals)

RN 122624-72-0 HCAPLUS

CN 2-Cyclopentene-1-methanol, 4-amino-, (1R,4S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 136470-89-8 HCAPLUS

CN 2-Cyclopentene-1-methanol, 4-amino-, cis-, acetate (salt) (9CI) (CA INDEX NAME)

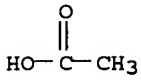
CM 1

CRN 122624-72-0
CMF C6 H11 N O

Relative stereochemistry.

CM 2

CRN 64-19-7
CMF C2 H4 O2

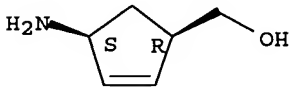


RN 136522-31-1 HCAPLUS
CN Butanedioic acid, 2,3-bis(benzoyloxy)-, (2R,3R)-, compd. with (1R,4S)-4-amino-2-cyclopentene-1-methanol (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 136522-30-0
CMF C6 H11 N O

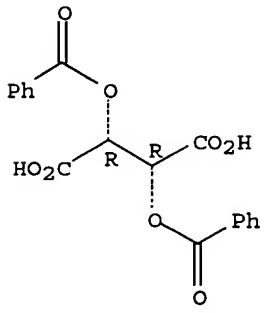
Absolute stereochemistry. Rotation (+).



CM 2

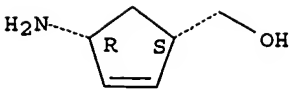
CRN 2743-38-6
CMF C18 H14 O8

Absolute stereochemistry. Rotation (-).



RN 136522-35-5 HCAPLUS
CN 2-Cyclopentene-1-methanol, 4-amino-, (1S,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

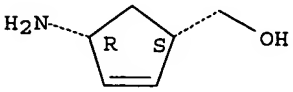


RN 136597-78-9 HCAPLUS
CN Butanedioic acid, 2,3-bis(benzoyloxy)-, (2S,3S)-, compd. with (1S,4R)-4-amino-2-cyclopentene-1-methanol (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 136522-35-5
CMF C6 H11 N O

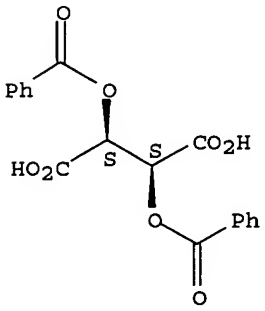
Absolute stereochemistry. Rotation (-).



CM 2

CRN 17026-42-5
CMF C18 H14 O8

Absolute stereochemistry. Rotation (+).



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CA INDEXING COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'USPAT2' ENTERED AT 10:48:11 ON 21 JUN 2006
CA INDEXING COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

=> d bib abs fhitstr hitrn 2-3 6 13 148

L48 ANSWER 2 OF 13 USPATFULL on STN
AN 2004:184553 USPATFULL
TI Process for the preparation of aminoalcohol derivatives and their further conversion to (1R,4S)-4-(2-amino-6-chloro-5-formamido-4-pyrimidinyl)-amino)-2-cyclopentenyl-1-methanol
IN Brieden, Walter, Brig, SWITZERLAND
Schroer, Josef, Susten, SWITZERLAND
Bernegger-Egli, Christine, Munster, SWITZERLAND
Urban, Eva Maria, Visp, SWITZERLAND

Petersen, Michael, Visp, SWITZERLAND
Roduit, Jean-Paul, Grone, SWITZERLAND
Berchtold, Katja, Baltschieder, SWITZERLAND
Breitbach, Holger, Baltschieder, SWITZERLAND
PI US2004142436 A1 20040722
AI 2003US-0695930 A1 20031029 (10)
RLI Division of Ser. No. 1998US-0198427, filed on 24 Nov 1998, GRANTED, Pat. No. US---6723868
PRAI 1997CH-0002739 19971127
1997CH-0002781 19971203
1998CH-0000133 19980121
1998CH-0000723 19980327
1998EP-0118895 19981007
DT Utility
FS APPLICATION
LREP DARBY & DARBY P.C., P. O. BOX 5257, NEW YORK, NY, 10150-5257
CLMN Number of Claims: 15
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1309
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention relates to a novel process for the preparation of an aminoalcohol of the formula ##STR1##

racemically or optically active, starting from 2-azabicyclo[2.2.1]hept-5-en-3-one, its further conversion to give the corresponding acyl derivative and its further conversion to (1S,4R)- or (1R,4S)-4-(2-amino-6-chloro-9-H-purine-9-yl)-2-cyclopentenyl-1-methanol of the formulae ##STR2##

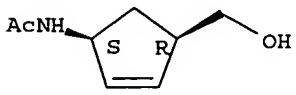
In the latter synthesis, the aminoalcohol is converted into the corresponding D- or L-tartrate, which is then reacted with N-(2-amino-4,6-dichloropyrimidin-5-yl) form amide of the formula ##STR3##

to give (1S,4R)- or (1R,4S)-4-[(2-amino-6-chloro-5-formamido-4-pyrimidinyl)amino]-2-cyclopentenyl-1-methanol of the formulae ##STR4##

and then cyclized to give the end compounds.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **65942-42-9P**
(preparation of 4-amino-2-cyclopentenemethanol enantiomers as drug intermediates)
RN 65942-42-9 USPATFULL
CN Acetamide, N-[(1R,4S)-4-(hydroxymethyl)-2-cyclopenten-1-yl]-, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



IT **65942-42-9P**
(preparation of 4-amino-2-cyclopentenemethanol enantiomers as drug intermediates)
IT **122624-72-0P 130931-86-1P 136522-30-0P 136522-35-5P 168960-18-7P 216481-85-5P 229177-39-3P 229177-46-2P 229177-49-5P 229177-52-0P**
(preparation of 4-amino-2-cyclopentenemethanol enantiomers as drug intermediates)
IT **168960-19-8 229177-60-0**

(preparation of 4-amino-2-cyclopentenemethanol enantiomers as drug intermediates)

L48 ANSWER 3 OF 13 USPATFULL on STN
AN 2004:97427 USPATFULL
TI Process for the preparation of aminoalcohol derivatives and their further conversion to (1R,4S)-4-((2-amino-6-chloro-5-formamido-4-pyrimidinyl)-amino)-2-cyclopentenyl-1-methanol
IN Brieden, Walter, Brig, SWITZERLAND
Schroer, Josef, Susten, SWITZERLAND
Bernegger-Egli, Christine, Munster, SWITZERLAND
Urban, Eva Maria, Visp, SWITZERLAND
Petersen, Michael, Visp, SWITZERLAND
Roduit, Jean-Paul, Grone, SWITZERLAND
Berchtold, Katja, Baltschieder, SWITZERLAND
Breitbach, Holger, Baltschieder, SWITZERLAND
PA Lonza AG, Basel, SWITZERLAND (non-U.S. corporation)
PI US---6723868 B1 20040420
AI 1998US-0198427 19981124 (9)
PRAI 1997CH-0002739 19971127
1997CH-0002781 19971203
1998CH-0000133 19980121
1998CH-0000723 19980327
1998EP-0118895 19981007
DT Utility
FS GRANTED
EXNAM Primary Examiner: Meller, Michael V.
LREP Darby & Darby
CLMN Number of Claims: 10
ECL Exemplary Claim: 1
DRWN 0 Drawing Figure(s); 0 Drawing Page(s)
LN.CNT 1195
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention relates to a novel process for the preparation of an aminoalcohol of the formula ##STR1##

racemically or optically active, starting from 2-azabicyclo[2.2.1]hept-5-en-3-one, its further conversion to give the corresponding acyl derivative and its further conversion to (1S,4R)- or (1R,4S)-4-(2-amino-6-chloro-9H-purine-9-yl)-2-cyclopentenyl-1-methanol of the formulae ##STR2##

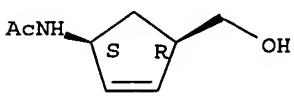
In the latter synthesis, the aminoalcohol is converted into the corresponding D- or L-tartrate, which is then reacted with N-(2-amino-4,6-dichloropyrimidin-5-yl)formamide of the formula ##STR3##

to give (1S,4R)- or (1R,4S)-4-[(2-amino-6-chloro-5-formamido-4-pyrimidinyl)amino]-2-cyclopentenyl-1-methanol of the formulae ##STR4##

and then cyclized to give the end compounds.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **65942-42-9P**
(preparation of 4-amino-2-cyclopentenemethanol enantiomers as drug intermediates)
RN 65942-42-9 USPATFULL
CN Acetamide, N-[(1R,4S)-4-(hydroxymethyl)-2-cyclopenten-1-yl]-, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



IT 65942-42-9P
(preparation of 4-amino-2-cyclopentenemethanol enantiomers as drug intermediates)
IT 122624-72-0P 130931-86-1P 136522-30-0P
136522-35-5P 168960-18-7P 216481-85-5P
229177-39-3P 229177-46-2P 229177-49-5P
229177-52-0P
(preparation of 4-amino-2-cyclopentenemethanol enantiomers as drug intermediates)
IT 168960-19-8 229177-60-0
(preparation of 4-amino-2-cyclopentenemethanol enantiomers as drug intermediates)

L48 ANSWER 6 OF 13 USPATFULL on STN
AN 2002:17479 USPATFULL
TI Process for the preparation of aminoalcohol derivatives and their further conversion to (1R, 4S)-4-((2-amino-6-chloro-5-formamido-4-pyrimidinyl)-amino)-2-cyclopentenyl-1- methanol
IN Brieden, Walter, Brig, SWITZERLAND
Schroer, Josef, Susten, SWITZERLAND
Bernegger-Egli, Christine, Munster, SWITZERLAND
Urban, Eva Maria, Visp, SWITZERLAND
Petersen, Michael, Visp, SWITZERLAND
Roduit, Jean-Paul, Grone, SWITZERLAND
Berchtold, Katja, Baltschieder, SWITZERLAND
Breitbach, Holger, Baltschieder, SWITZERLAND
PA Lonza AG, Basel, SWITZERLAND, CH-4002 (non-U.S. corporation)
PI US2002010360 A1 20020124
US---6448402 B2 20020910
AI 2001US-0772501 A1 20010130 (9)
RLI Division of Ser. No. 1998US-0198427, filed on 24 Nov 1998, PENDING
PRAI 1997CH-0002739 19971127
1997CH-0002781 19971203
1998CH-0000133 19980121
1998CH-0000723 19980327
1998EP-0118895 19981007
DT Utility
FS APPLICATION
LREP Bert J. Lewen, DARBY & DARBY P.C., 805 Third Avenue, New York, NY, 10022
CLMN Number of Claims: 15
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1304
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention relates to a novel process for the preparation of an aminoalcohol of the formula ##STR1##

racemically or optically active, starting from 2-azabi-cyclo[2.2.1]hept-5-en-3-one, its further conversion to give the corresponding acyl derivative and its further conversion to (1S,4R)- or (1R,4S)-4-(2-amino-6-chloro-9-H-purine-9-yl)-2-cyclopentenyl-1-methanol of the formulae ##STR2##

In the latter synthesis, the aminoalcohol is converted into the corresponding D- or L-tartrate, which is then reacted with N-(2-amino-4,6-dichloropyrimidin-5-yl) formamide of the formula ##STR3##

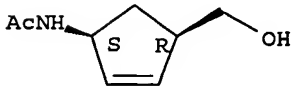
to give (1S,4R)- or (1R,4S)-4-[(2-amino-6-chloro-5-formamido-4-pyrimidinyl)amino]-2-cyclopentenyl-1-methanol of the formulae ##STR4##

and then cyclized to give the end compounds.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT 65942-42-9P

(preparation of 4-amino-2-cyclopentenemethanol enantiomers as drug intermediates)
RN 65942-42-9 USPATFULL
CN Acetamide, N-[(1R,4S)-4-(hydroxymethyl)-2-cyclopenten-1-yl]-, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



IT **65942-42-9P**
(preparation of 4-amino-2-cyclopentenemethanol enantiomers as drug intermediates)
IT **122624-72-0P 130931-86-1P 136522-30-0P 136522-35-5P 168960-18-7P 216481-85-5P 229177-39-3P 229177-46-2P 229177-49-5P 229177-52-0P**
(preparation of 4-amino-2-cyclopentenemethanol enantiomers as drug intermediates)
IT **168960-19-8 229177-60-0**
(preparation of 4-amino-2-cyclopentenemethanol enantiomers as drug intermediates)

L48 ANSWER 13 OF 13 USPAT2 on STN
AN 2002:17479 USPAT2
TI Process for the preparation of aminoalcohol derivatives and their further conversion to (1R, 4S)-4-((2-amino-6-chloro-5-formamido-4-pyrimidinyl)-amino)-2-cyclopentenyl-1-methanol
IN Brieden, Walter, Brig, SWITZERLAND
Schroer, Josef, Susten, SWITZERLAND
Bernegger-Egli, Christine, Munster, SWITZERLAND
Urban, Eva Maria, Visp, SWITZERLAND
Petersen, Michael, Visp, SWITZERLAND
Roduit, Jean-Paul, Grone, SWITZERLAND
Berchtold, Katja, Baltschieder, SWITZERLAND
Breitbach, Holger, Baltschieder, SWITZERLAND
PA Lonza AG, Basel, SWITZERLAND (non-U.S. corporation)
PI US---6448402 B2 20020910
AI 2001US-0772501 20010130 (9)
RLI Division of Ser. No. 1998US-0198427, filed on 14 Nov 1998
PRAI 1997CH-0002739 19971127
1997CH-0002781 19971203
1998CH-0000133 19980121
1998CH-0000723 19980327
1998EP-0118895 19981007
DT Utility
FS GRANTED
EXNAM Primary Examiner: Berch, Mark L.
LREP Darby & Darby
CLMN Number of Claims: 7
ECL Exemplary Claim: 1
DRWN 0 Drawing Figure(s); 0 Drawing Page(s)
LN.CNT 1206
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention relates to a novel process for the preparation of an aminoalcohol of the formula ##STR1##

racemically or optically active, starting from 2-azabicyclo[2.2.1]hept-5-en-3-one, its further conversion to give the corresponding acyl derivative and its further conversion to (1S,4R)-- or (1R,4S)-4-(2-amino-6-chloro-9-H-purine-9-yl)-2-cyclopentenyl-1-methanol of the formulae ##STR2##

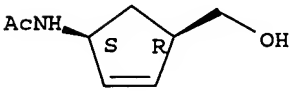
In the latter synthesis, the aminoalcohol is converted into the corresponding D- or L-tartrate, which is then reacted with N-(2-amino-4,6-dichloropyrimidin-5-yl)formamide of the formula ##STR3##

to give (1S,4R)-- or (1R,4S)-4-[(2-amino-6-chloro-5-formamido-4-pyrimidinyl)amino]-2-cyclopentenyl-1-methanol of the formulae ##STR4##

and then cyclized to give the end compounds.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **65942-42-9P**
(preparation of 4-amino-2-cyclopentenemethanol enantiomers as drug intermediates)
RN 65942-42-9 USPAT2
CN Acetamide, N-[(1R,4S)-4-(hydroxymethyl)-2-cyclopenten-1-yl]-, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



IT **65942-42-9P**
(preparation of 4-amino-2-cyclopentenemethanol enantiomers as drug intermediates)
IT **122624-72-0P 130931-86-1P 136522-30-0P 136522-35-5P 168960-18-7P 216481-85-5P 229177-39-3P 229177-46-2P 229177-49-5P 229177-52-0P**
(preparation of 4-amino-2-cyclopentenemethanol enantiomers as drug intermediates)
IT **168960-19-8 229177-60-0**
(preparation of 4-amino-2-cyclopentenemethanol enantiomers as drug intermediates)

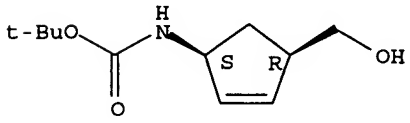
=> d bib abs hitstr 1 4-5 7-12

L48 ANSWER 1 OF 13 USPATFULL on STN
AN 2004:228019 USPATFULL
TI Methods and compounds for inhibitting MRP1
IN Kroin, Julian, Indianapolis, IN, UNITED STATES
Norman, Bryan Hurst, Indianapolis, IN, UNITED STATES
York, Jeremy Schulenburg, Indianapolis, IN, UNITED STATES
PI US2004176405 A1 20040909
AI 2004US-0797362 A1 20040310 (10)
RLI Division of Ser. No. 2002US-0130800, filed on 21 May 2002, GRANTED, Pat. No. US---6743794 A 371 of International Ser. No. 2000WO-US32443, filed on 11 Dec 2000, PENDING
PRAI 1999US-171373P 19991222 (60)
2000US-226076P 20000817 (60)
2000US-234539P 20000922 (60)
DT Utility
FS APPLICATION
LREP ELI LILLY AND COMPANY, PATENT DIVISION, P.O. BOX 6288, INDIANAPOLIS, IN, 46206-6288
CLMN Number of Claims: 71
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 12657
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention further relates to a method of inhibiting MRP1 in

a mammal which comprises administering to a mammal in need thereof an effective amount of a compound of formula (I). ##STR1##

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **153011-43-9P**
(preparation of N-isoxazoloquinolinylcyclohexylcarboxamides and analogs as MRP1 inhibitors)
RN 153011-43-9 USPATFULL
CN Carbamic acid, [(1S,4R)-4-(hydroxymethyl)-2-cyclopenten-1-yl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

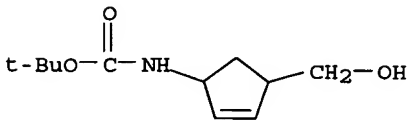
Absolute stereochemistry. Rotation (+).



L48 ANSWER 4 OF 13 USPATFULL on STN
AN 2003:306989 USPATFULL
TI Tricyclic compounds as mrp1-inhibitors
IN Lander, Peter Ambrose, Indianapolis, IN, UNITED STATES
Wang, Quiping, Hamden, CT, UNITED STATES
Vepachedu, Sreenivasarao, Palo Alto, CA, UNITED STATES
PI US2003216425 A1 20031120
US---6673809 B2 20040106
AI 2003US-0296481 A1 20030416 (10)
2001WO-US16475 20010601
DT Utility
FS APPLICATION
LREP ELI LILLY AND COMPANY, PATENT DIVISION, P.O. BOX 6288, INDIANAPOLIS, IN, 46206-6288
CLMN Number of Claims: 15
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1612
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB ##STR1##

The present invention relates to a compounds of formula I, wherein A is olefin, diol, or acetonide; which are useful for inhibiting resistant neoplasms where the resistance is conferred in part or in total by MRP1.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **216481-83-3P**
(preparation of 5H-isoxazolo[4,3-c]quinolin-4-ones as MRP1 inhibitors)
RN 216481-83-3 USPATFULL
CN Carbamic acid, [4-(hydroxymethyl)-2-cyclopenten-1-yl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



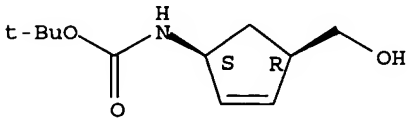
L48 ANSWER 5 OF 13 USPATFULL on STN
AN 2003:146829 USPATFULL
TI Methods and compounds for inhibiting mrp1
IN Bonjouklian, Rosanne, Zionsville, IN, UNITED STATES

Cohen, Jeffrey Daniel, Indianapolis, IN, UNITED STATES
Gruber, Joseph Michael, Brownsburg, IN, UNITED STATES
Johnson, Douglas Webb, Zionsville, IN, UNITED STATES
Jungheim, Louis Nickolaus, Indianapolis, IN, UNITED STATES
Kroin, Julian Stanley, Indianapolis, IN, UNITED STATES
Lander, Peter Ambrose, Indianapolis, IN, UNITED STATES
Lin, Ho-Shen, Indianapolis, IN, UNITED STATES
Lohman, Mark Christopher, Boulder, CO, UNITED STATES
Muehl, Brian Stephen, Greenwood, IN, UNITED STATES
Norman, Bryan Hurst, Indianpolis, IN, UNITED STATES
Patel, Vinod Francis, Acton, MA, UNITED STATES
Richett, Michael Enrico, Indianapolis, IN, UNITED STATES
Thrasher, Kenneth Jeff, Indianapolis, IN, UNITED STATES
Vepachedu, Sreenivasarao, Palo Alto, CA, UNITED STATES
White, Wesley Todd, Indianpolis, IN, UNITED STATES
Xie, Yongping, Naperville, IL, UNITED STATES
York, Jeremy Schulenburg, Indianapolis, IN, UNITED STATES
Parkhurst, Brandon Lee, Indianapolis, IN, UNITED STATES

PI US2003100576 A1 20030529
US---6743794 B2 20040601
AI 2002US-0130800 A1 20020521 (10)
2000WO-US32443 20001211
DT Utility
FS APPLICATION
LREP ELI LILLY AND COMPANY, PATENT DIVISION, P.O. BOX 6288, INDIANAPOLIS, IN, 46206-6288
CLMN Number of Claims: 71
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 14296
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention further relates to a method of inhibiting MRP1 in a mammal which comprises administering to a mammal in need thereof an effective amount of a compound of formula (I).

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **153011-43-9P**
(preparation of N-isoxazoloquinolinylcyclohexylcarboxamides and analogs as MRP1 inhibitors)
RN 153011-43-9 USPATFULL
CN Carbamic acid, [(1S,4R)-4-(hydroxymethyl)-2-cyclopenten-1-yl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

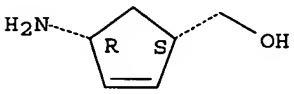


L48 ANSWER 7 OF 13 USPATFULL on STN
AN 93:33687 USPATFULL
TI 4-amino-2-cyclopentene-1-methanol
IN Daluge, Susan M., Chapel Hill, NC, United States
PA Burroughs Wellcome Co., Research Triangle Park, NC, United States (U.S. corporation)
PI US---5206435 19930427
AI 1991US-0767134 19910927 (7)
RLI Division of Ser. No. 1990US-0630129, filed on 19 Dec 1990, now patented, Pat. No. US---5087697 which is a continuation-in-part of Ser. No. 1989US-0455201, filed on 22 Dec 1989, now patented, Pat. No. US---5034394 which is a continuation-in-part of Ser. No. 1989US-0371870, filed on 26 Jun 1989, now abandoned

PRAI 1988GB-0015265 19880627
DT Utility
FS Granted
EXNAM Primary Examiner: Tsang, Cecilia
LREP Brown, Donald, Nielsen, Lawrence A., Green, Hannah O.
CLMN Number of Claims: 4
ECL Exemplary Claim: 1,4
DRWN No Drawings
LN.CNT 1592
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to 6-substituted purine carbocyclic nucleosides and their use in medical therapy particularly in the treatment of HIV and HBV infections. The invention also relates to pharmaceutical formulations and processes for the preparation of compounds according to the invention.

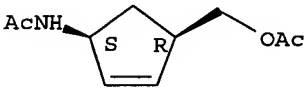
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **122624-72-0P**
(preparation of, as intermediate for virucide)
RN 122624-72-0 USPATFULL
CN 2-Cyclopentene-1-methanol, 4-amino-, (1R,4S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



IT **61865-50-7**
(saponification of)
RN 61865-50-7 USPATFULL
CN Acetamide, N-[(1R,4S)-4-[(acetyloxy)methyl]-2-cyclopenten-1-yl]-, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



L48 ANSWER 8 OF 13 USPATFULL on STN
AN 92:12958 USPATFULL
TI Therapeutic nucleosides
IN Daluge, Susan M., Chapel Hill, NC, United States
PA Burroughs Wellcome Co., Research Triangle Park, NC, United States (U.S. corporation)
PI US---5089500 19920218
AI 1991US-0697260 19910508 (7)
RLI Continuation of Ser. No. 1989US-0455201, filed on 22 Dec 1989, now patented, Pat. No. US---5034394 which is a continuation of Ser. No. 1989US-0371870, filed on 26 Jun 1989, now abandoned
PRAI 1988GB-0015265 19880627
DT Utility
FS Granted
EXNAM Primary Examiner: Shen, Cecilia
LREP Brown, Donald, Nielsen, Lawrence A., Green, Hannah O.
CLMN Number of Claims: 17
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1563
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

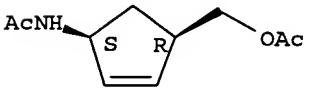
AB The present invention relates to 6-substituted purine carbocyclic nucleosides and their use in medical therapy particularly in the treatment of HIV and HBV infections. Also provided are pharmceutical formulations and processes for the preparation of compounds according to the invention.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **122624-72-0P**
(preparation of, as intermediate for virucide)
RN 122624-72-0 USPATFULL
CN 2-Cyclopentene-1-methanol, 4-amino-, (1R,4S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

IT **61865-50-7**
(saponification of)
RN 61865-50-7 USPATFULL
CN Acetamide, N-[(1R,4S)-4-[(acetyloxy)methyl]-2-cyclopenten-1-yl]-, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

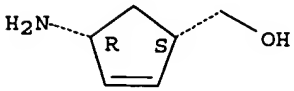


L48 ANSWER 9 OF 13 USPATFULL on STN
AN 92:10941 USPATFULL
TI Therapeutic nucleosides
IN Daluge, Susan M., Chapel Hill, NC, United States
PA Burroughs Wellcome Co., Research Triangle Park, NC, United States (U.S. corporation)
PI US--5087697 19920211
AI 1990US-0630129 19901219 (7)
RLI Continuation-in-part of Ser. No. 1989US-0455201, filed on 22 Dec 1989 which is a continuation-in-part of Ser. No. 1989US-0371870, filed on 26 Jun 1989, now abandoned
PRAI 1988GB-0015265 19880627
DT Utility
FS Granted
EXNAM Primary Examiner: Shen, Cecilia
LREP Brown, Donald, Nielsen, Lawrence A., Green, Hannah O.
CLMN Number of Claims: 9
ECL Exemplary Claim: 1,9
DRWN No Drawings
LN.CNT 1607
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to 6-substituted purine carbocyclic nucleosides and their use in medical therapy particularly in the treatment of HIV and HBV infections. The invention also relates to pharmaceutical formulations and processes for the preparation of compounds according to the invention.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **122624-72-0P**
(preparation of, as intermediate for virucide)
RN 122624-72-0 USPATFULL

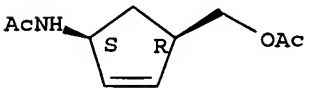
CN 2-Cyclopentene-1-methanol, 4-amino-, (1R,4S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



IT 61865-50-7
(saponification of)
RN 61865-50-7 USPATFULL
CN Acetamide, N-[(1R,4S)-4-[(acetyloxy)methyl]-2-cyclopenten-1-yl]-, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



L48 ANSWER 10 OF 13 USPATFULL on STN
AN 91:58937 USPATFULL
TI Therapeutic nucleosides
IN Daluge, Susan M., Chapel Hill, NC, United States
PA Burroughs Wellcome Co., Research Triangle Park, NC, United States (U.S. corporation)
PI US--5034394 19910723
AI 1989US-0455201 19891222 (7)
RLI Continuation-in-part of Ser. No. 1989US-0371870, filed on 26 Jun 1989, now abandoned
PRAI 1988GB-0015265 19880627
DT Utility
FS Granted
EXNAM Primary Examiner: Shen, Cecilia
LREP Brown, Donald, Nielsen, Lawrence A., Green, Hannah O.
CLMN Number of Claims: 20
ECL Exemplary Claim: 1,18
DRWN No Drawings
LN.CNT 1548
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to 6-substituted purine carbocyclic nucleosides and their use in medical therapy particularly in the treatment of HIV and HBV infections. Also provided are pharmaceutical formulations and processes for the preparation of compounds according to the invention.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **122624-72-0P 136470-89-8P 136522-35-5P,**
(1S,4R)-4-Amino-2-cyclopentene-1-methanol 136597-78-9P
138923-02-1P
(preparation of, as intermediate for antiviral agents)
RN 122624-72-0 USPATFULL
CN 2-Cyclopentene-1-methanol, 4-amino-, (1R,4S)-rel- (9CI) (CA INDEX NAME)

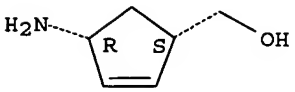
Relative stereochemistry.

RN 136470-89-8 USPATFULL
CN 2-Cyclopentene-1-methanol, 4-amino-, cis-, acetate (salt) (9CI) (CA INDEX NAME)

CM 1

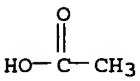
CRN 122624-72-0
CMF C6 H11 N O

Relative stereochemistry.



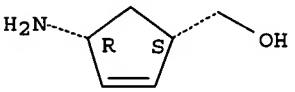
CM 2

CRN 64-19-7
CMF C2 H4 O2



RN 136522-35-5 USPATFULL
CN 2-Cyclopentene-1-methanol, 4-amino-, (1S,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

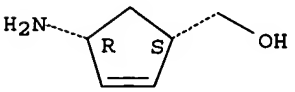


RN 136597-78-9 USPATFULL
CN Butanedioic acid, 2,3-bis(benzoyloxy)-, (2S,3S)-, compd. with (1S,4R)-4-amino-2-cyclopentene-1-methanol (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 136522-35-5
CMF C6 H11 N O
CDES *

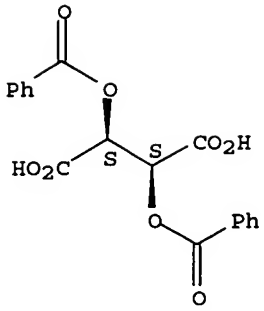
Absolute stereochemistry. Rotation (-).



CM 2

CRN 17026-42-5
CMF C18 H14 O8

Absolute stereochemistry. Rotation (+).



RN 138923-02-1 USPATFULL
CN Butanedioic acid, 2,3-bis(benzoyloxy)-, [R-(R*,R*)]-, compd. with (1S-cis)-4-amino-2-cyclopentene-1-methanol (1:2) (9CI) (CA INDEX NAME)

CM 1

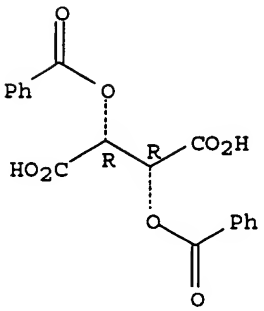
CRN 136522-35-5
CMF C6 H11 N O
CDES *

Absolute stereochemistry. Rotation (-).

CM 2

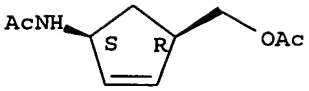
CRN 2743-38-6
CMF C18 H14 O8

Absolute stereochemistry. Rotation (-).



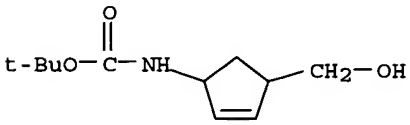
IT 61865-50-7
(reaction of, in preparation of antiviral agents)
RN 61865-50-7 USPATFULL
CN Acetamide, N-[(1R,4S)-4-[(acetyloxy)methyl]-2-cyclopenten-1-yl]-, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



L48 ANSWER 11 OF 13 USPAT2 on STN
AN 2003:306989 USPAT2
TI Tricyclic compounds as MRP1-inhibitors
IN Lander, Peter Ambrose, Indianapolis, IN, United States
Wang, Qiuping, Hamden, CT, United States
Vepachedu, Sreenivasarao, Palo Alto, CA, United States
PA Eli Lilly and Company, Indianapolis, IN, United States (U.S. corporation)
PI US---6673809 B2 20040106
WO2001096346 20011220
AI 2003US-0296481 20030416 (10)
2001WO-US16475 20010601
PRAI 2000US-211430P 20000614 (60)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Aulakh, Charanjit S.
LREP Tucker, Tina M., McGraw, Elizabeth, Lee, Kirby W.
CLMN Number of Claims: 9
ECL Exemplary Claim: 1
DRWN 0 Drawing Figure(s); 0 Drawing Page(s)
LN.CNT 1717
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to a compounds of formula I, wherein A is olefin, diol, or acetonide; which are useful for inhibiting resistant neoplasms where the resistance is conferred in part or in total by MRP1.
##STR1##

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT 216481-83-3P
(preparation of 5H-isoxazolo[4,3-c]quinolin-4-ones as MRP1 inhibitors)
RN 216481-83-3 USPAT2
CN Carbamic acid, [4-(hydroxymethyl)-2-cyclopenten-1-yl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



L48 ANSWER 12 OF 13 USPAT2 on STN
AN 2003:146829 USPAT2
TI Methods and compounds for inhibiting MRP1
IN Bonjouklian, Rosanne, Zionsville, IN, United States
Cohen, Jeffrey Daniel, Indianapolis, IN, United States
Gruber, Joseph Michael, Brownsburg, IN, United States
Johnson, Douglas Webb, Zionsville, IN, United States
Jungheim, Louis Nickolaus, Indianapolis, IN, United States
Kroin, Julian Stanley, Indianapolis, IN, United States
Lander, Peter Ambrose, Indianapolis, IN, United States
Lin, Ho-Shen, Indianapolis, IN, United States
Lohman, Mark Christopher, Boulder, CO, United States
Muehl, Brian Stephen, Greenwood, IN, United States
Norman, Bryan Hurst, Indianapolis, IN, United States
Patel, Vinod Francis, Acton, MA, United States

Richett, Michael Enrico, Indianapolis, IN, United States
Thrasher, Kenneth Jeff, Indianapolis, IN, United States
Vepachedu, Sreenivasarao, Palo Alto, CA, United States
White, Wesley Todd, Indianapolis, IN, United States
Xie, Yongping, Naperville, IL, United States
York, Jeremy Schulenburg, Indianapolis, IN, United States
Parkhurst, Brandon Lee, Indianapolis, IN, United States
Wang, Qiupang, Hamden, CT, United States

PA Eli Lilly and Company, Indianapolis, IN, United States (U.S. corporation)

PI US---6743794 B2 20040601
WO2001046199 20020628

AI 2002US-0130800 20020521 (10)
2000WO-US32443 20001211

PRAI 1999US-171373P 19991222 (60)
2000US-226076P 20000817 (60)
2000US-234539P 20000928 (60)

DT Utility

FS GRANTED

EXNAM Primary Examiner: Huang, Evelyn Mei

LREP Tucker, Tina M., McGraw, Elizabeth

CLMN Number of Claims: 39

ECL Exemplary Claim: 1

DRWN 0 Drawing Figure(s); 0 Drawing Page(s)

LN.CNT 11329

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention further relates to a method of inhibiting MRP1 in a mammal which comprises administering to a mammal in need thereof an effective amount of a compound of formula (I). ##STR1##

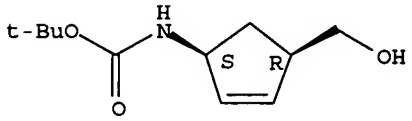
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 153011-43-9P
(preparation of N-isoxazoloquinolinylcyclohexylcarboxamides and analogs as MRP1 inhibitors)

RN 153011-43-9 USPAT2

CN Carbamic acid, [(1S,4R)-4-(hydroxymethyl)-2-cyclopenten-1-yl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



=> d his

(FILE 'HOME' ENTERED AT 10:11:59 ON 21 JUN 2006)

FILE 'HCAPLUS' ENTERED AT 10:12:08 ON 21 JUN 2006

L1 1 (US2004142436 OR US6723868)/PN OR (US2003-695930 OR CH1998-1188
E BRIEDEN W/AU
L2 36 E4
E SCHROER J/AU
L3 21 E3-5,E11-14
E BERNEGGER/AU
L4 9 E6,E8
E URBAN E/AU
L5 24 E3
E URBAN EVA/AU
L6 7 E3-4
E PETERSEN M/AU

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L7          158 E3-21
                E PETERSEN MI/AU
L8          118 E4-20
                E RODUIT J/AU
L9           38 E4-5
                E BERCHTOLD K/AU
L10          10 E3-4,E8
                E BREITBACH H/AU
L11           7 E3-4,E8

     FILE 'REGISTRY' ENTERED AT 10:16:51 ON 21 JUN 2006

     FILE 'HCAPLUS' ENTERED AT 10:16:57 ON 21 JUN 2006
L12             TRA L1 1- RN :       22 TERMS

     FILE 'REGISTRY' ENTERED AT 10:16:57 ON 21 JUN 2006
L13          22 SEA L12
L14          17 L13 AND C5/ES
L15             STR
L16           1 L15 CSS
L17          62 L15 CSS FULL
                SAV TEM L17 MEL930F0/A
L18           9 L14 AND C6H11NO

     FILE 'HCAPLUS' ENTERED AT 10:25:02 ON 21 JUN 2006
L19          88 L17
L20           9 CYCLOPENTENE (1A)AMINO (1A)METHANOL OR AMINO (1A)CYCLOPENTENEME
L21           7 L19-20 AND L1-11
L22          64 L19-20 (L) PREP+NT/RL
L23           5 L22 AND L21
L24           7 L21,L23

     FILE 'REGISTRY' ENTERED AT 10:28:26 ON 21 JUN 2006
L25           5 L13 NOT L14
                E TARTARIC ACID/CN
L26           1 E3
L27         484 C4H6O6 AND  TARTAR?
L28         407 L27 NOT PMS/CI
L29         297 L28 NOT (COMPD OR COMPOUND OR UNSPECIFIED)
L30         287 L29 NOT ESTER
L31           4 C4H6O6 AND L17

     FILE 'HCAPLUS' ENTERED AT 10:31:42 ON 21 JUN 2006
L32           1 L31
L33       28022 L30
L34       33695 ?TARTARIC? (1A)ACID OR DIHYDROXYETHANE (2A)DICARBOX? (1A)ACID O
L35          26 DIHYDROXYSUCCINIC (1A)ACID
L36          13 "E334" OR E 334 OR THEARIC ACID
L37           1 L31 AND L1-11
L38           7 L24,L37
                E TARTARIC/CT
                E E4+ALL
L39       26604 E11+NT
L40           0 L38 AND L33-36,L39
L41           1 L22 AND L33-36,L39
L42          59 L22 NOT L38
L43          44 L42 AND (PY<=1998 OR AY<=1998 OR PRY<=1998)
L44           1 L43 AND L19-20 (L)PUR/RL
L45           2 L41,L44

     FILE 'HCAOLD' ENTERED AT 10:45:13 ON 21 JUN 2006
L46           0 L17

     FILE 'USPATFULL, USPAT2' ENTERED AT 10:45:57 ON 21 JUN 2006
L47          68 L17
L48          13 L47 AND L33-36
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E TARTARIC ACID/CT

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